



PLH
UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/476,303	12/30/1999	GILBERT WOLRICH	10559/133001	7635
20985	7590	03/23/2004	EXAMINER	
FISH & RICHARDSON, PC 12390 EL CAMINO REAL SAN DIEGO, CA 92130-2081			THOMPSON, MARC D	
		ART UNIT		PAPER NUMBER
		2144		21

DATE MAILED: 03/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

P20

Office Action Summary

Application N .	09/476,303	Applicant(s)	WOLRICH ET AL.
Examiner	Marc D. Thompson	Art Unit	2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 14 January 2004.
2a) This action is FINAL. 2b) This action is non-final.
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-19 is/are pending in the application.
4a) Of the above claim(s) 19 is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-18 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
10) The drawing(s) filed on 18 June 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____.

DETAILED ACTION

1. Applicant's response, Amendment E, Paper #20, received 1/14/2004, has been entered.
2. Claims 1-19 remain pending.
3. Claim 19 remains withdrawn from consideration. This claim is directed to a different invention than the elected group currently undergoing examination. Cancellation of this claim will be required should the current claims be found to contain allowable subject matter.

Priority

4. No claim for priority has been made in this application.
5. The effective filing date for the subject matter defined in the pending claims in this application is 12/30/1999.

Drawings

6. The Examiner contends that the drawings submitted on 6/18/2003 are acceptable for examination proceedings.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
8. Claims 5-16 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
9. Claim 5 and 16 recite the limitation "process the data" in line 3 of the claim. It is unclear whether this recited "data" is the previously recited/defined "received data" or "additional data" set forth in the independent claim(s). Since "the data" is broad enough to encompass both

Art Unit: 2144

received data and additional data, it is unclear what data, what portions of the data, or whether all of the recited data, is being processed.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)):

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

11. Claims 1-18 are rejected under 35 U.S.C. §102(b) as being anticipated by Yasrebi (U.S. Patent Number 5,463,625), hereinafter referred to as Yasrebi '625, or alternatively, under 35 U.S.C. §102(e) as being anticipated by Yasrebi (U.S. Patent Number 6,141,689), hereinafter referred to as Yasrebi '689.

12. It is noted that Yasrebi '625 fully incorporates by reference Yasrebi '689, and vice-versa. See Yasrebi '625, Column 9, Lines 63-67, and Yasrebi '689, Column 3, Lines 18-29. This combination of references will be treated as a single, combined document.

13. Yasrebi disclosed methodology mapping physical and/or logical ports with particular processes and/or threads. See Yesrebi '625, *inter alia*, Column 8, Lines 5-12, and Yasrebi '689, Figure 2. The control threads as disclosed, *inter alia*, in Yasrebi '625, Yasrebi '625 in Column 8,

Lines 20 through Column 9, Line 54, fully meet the schedular thread, as interpreted using the plain meaning of the words, and further, as interpreted in view of the specification.

14. These claims were fully disclosed by the teachings of Yasrebi as follows:

(claim 1, 13)

1. *assigning with a scheduling thread, one of a plurality of ports to one of a plurality of processes*, was taught by Yasrebi '625 in Column 8, Lines 20 through Column 9, Line 54, and Yasrabi '689, *inter alia*, in Column 9, Lines 5-10, or Column 11, Lines 1-9.

2. *one of the processes executing at least one thread*, was taught by Yasrebi '625 in Column 8, Line 30, and Yasrebi '689, *inter alia*, in Column 12, Lines 26-30.

3. *determining that additional data is available from the assigned port*, was taught by Yasrebi '689, *inter alia*, in Column 11, Lines 13-16. If the port was not "idle" and/or the port was currently active in a communication, data was determined to be forthcoming.

4. *awaiting notification by one of the plurality of processes that processing of the additional data has been completed prior to reassigning the port to one of the plurality of processes*, was taught by Yasrebi '689 in Column 10, Lines 24-30. Every port communication was timed between PortOpen and PortClose function calls (i.e., active), and each port was assigned in response to call/RPC initiation. Thus, a "session", call, or RPC termination or "sharing" (port sharing, as disclosed by Yasrebi '689 was optional functionality in Column 11, Lines 26-36) was required prior to reassignment of the port to a thread or process. Without multiplexing (more optional functionality), only one thread may use any particular port. See Yasrebi '689, *inter alia*, Column 10, Lines 45-63, and Column 12, Lines 31-37.

(claim 2, 14)

Art Unit: 2144

5. *determining if data is available from one of the plurality of ports*, was taught by Yasrebi '689, inter alia, in Column 11, Lines 10-21. The provision for "marking" ports as "idle" fully meets this claim limitation.

(claim 3, 15)

6. *selecting one of the plurality of processes using the scheduler thread*, was taught, inter alia, by Yasrebi '625 in Column 8, Lines 20 through Column 9, Line 54, and Yesrabi '689, inter alia, in Column 9, Lines 5-10, or Column 11, Lines 1-9.

(claim 4)

7. *directing transfer of the data from the assigned port to the one of the plurality of processes for processing*, was taught by Yasrebi '689, inter alia, in Figure 2. Each thread of each process used a port as a conduit of for communication uniquely; each arbitrary thread within a process used only one port for bi-directional communication. Additionally, the gateway provided this express functionality. See Column 5, Lines 35-38, and Column 10, Lines 17-23.

(claim 5, 16)

8. *determining using the scheduler thread, if any of the plurality of processes is available to process the data*, was taught by Yasrebi '689 in Column 7, Lines 51-58, and Column 10, Lines 45-51.

9. *[selecting] an available process [for assumed processing]*, was taught by Yasrebi '689 in Column 7, Lines 55-56, and Column 10, Line 38 through Column 11, Line 9.

(claim 6, 17)

10. *recording the port-to-process assignment on an assignment list*, was taught by Yasrebi '689 in Column 12, Lines 6-8.

Art Unit: 2144

(claim 7, 18)

11. *removing the port-to-process assignment from the assignment list upon receiving notification that the processing has been completed*, was taught by Yasrebi '689 in Column 12, Lines 6-8.

(claim 8, 9, 10)

12. *data comprises [at least a portion of] network packet data*, was taught by Yasrebi '689 in Column 7, Lines 65-66.

(claim 11, 12)

13. *network packet comprises an Ethernet packet, [and] one of the plurality of ports is an [] Ethernet port*, was taught by Yasrebi '689 in Column 7, Lines 65-66, and Column 8, Lines 31-36.

Since all the claimed limitations were set forth by the teachings of Yasrebi, claims 1-18 are rejected.

Response to Arguments

15. The arguments presented by Applicant in the response, Amendment E, Paper #20, received 1/14/2004, are not considered persuasive.

16. Applicant again fails to clarify the proper antecedent basis for “the data” element found in claims 5 and 16. See, 35 U.S.C. §112, second paragraph rejection, above. Also see, Amendment E, Paper #20, received 1/14/2004, Page 7, Lines 6-20. Applicant simply fails to particularly point out what data is being recited, simply alleging the term has antecedent basis in the base claims. Thus, the rejection is maintained.

17. Applicant asserts the prior art did not expressly provide the use of a scheduling thread. See, *inter alia*, Amendment E, Paper #20, received 1/14/2004, Page 8, Lines 18-23 (Third

Art Unit: 2144

paragraph). Simply because Yasrebi does not expressly recite a “scheduler thread”, verbatim, does not infer or suggest Yasrebi does not expressly disclose identical functionality, as claimed. Applicant fails to define what this scheduler thread is, or how it is different from the prior art as cited and applied. Examiner stands firm on the section(s) of Yesrebi directly cited, with limitation granularity, for teaching the claimed invention in its’ current state. In order to clarify this point, again, some terms will be defined.

18. The term “THREAD” was notoriously known in the computer programming arts as an individual process within a single application. The term “scheduling” infers two critical elements: task(s) and time(s). Any individual process performing an arrangement of a number of related operations in time meets the “plain English” meaning of the broadly claimed “scheduler thread”. Indeed, the instant specification does not even use this degree of clarity when defining either of these terms.

19. Specifically, in Yesrabi ‘625, Column 8, Lines 20 through Column 9, Line 54, “control threads” may read data from a port (Column 8, Lines 55-58), send data to a port (Column 8, Lines 65-67), expedite transmission of specified characters (TransImmediate) (Column 9, Lines 6-8), and block thread(s) until specified event(s) occur (Column 9, Lines 15-16). At the very least, this latter detailed express functionality “blocking threads until specified events occur” was a direct teaching that an “individual process performing an operation in time” was clearly met by Yesrabi. Lastly, ANY of the differing logical types of threads are enabled to open and close ports (Column 9, Lines 18-24), providing the ability of a control thread to, inter alia, “open a port when specified event(s) occur.” Examiner contends there is no functional difference between threads disclosed by Yasrebi and the “scheduling thread” disclosed by

Applicant. The present specification recites “the transmit scheduler thread assigns packets to transmit processing threads that send the packet out” (present specification, Page 10, Lines 13-17), “each receive request is processed by a receive processing thread...places the processed data in memory and signals the receive scheduler the the request is complete [] using the thread done registers...the receive scheduler thread must poll the registers periodically to determine thread status”, and “port blocking procedure performed by the receive scheduler thread...” (present specification, Page 29, Line 6 through Page 31, Line 1. This is identically parallel with Yasrebi ‘625, *inter alia*, Column 8, Line 13 through Column 9, Lines 54, and Yasrebi ‘689, Column 11, Line 10 through Column 12, Line 8. Thus, distinguishing the claimed invention from the prior art as applied as anticipatory through this feature alone is not persuasive.

20. Applicant continues assertion that there was no scheduler thread(s) disclosed by Yasrebi, further arguing selection of processes to be executed, and “directing transfer of data from an assigned port to one of a plurality of processes”. See, Response, Amendment E, Paper #20, received 1/14/2004, *inter alia*, Page 10, Lines 3-15. Applicant is again directed, *inter alia*, to PortOpen functions called by any of the control threads resulting in the reception of data to a processing procedure running on the receiving computer. See, *inter alia*, Yasrebi ‘625, Column 8, Lines 20 through Column 9, Line 54.

21. Examiner stands behind all comments made in the Interview Summary, Paper #12, conducted 5/15/2003, made to the attorney of record Jeffrey Barclay (Reg. #48,950). All of the issues raised then are still applicable, including suggested areas for narrowing of claims and limitation meaning and interpretation, and TITLE revision to result in commensurate inventive

Art Unit: 2144

concept. Applicant was given express direction for remedy of these concerns, and remains hesitant to sufficiently clarify the claimed invention in accordance with these suggestions.

22. Examiner notes that, *inter alia*, claims 3 and 15, previously rejected under 35 U.S.C. 112, second paragraph, for indefiniteness, remain unclear, even after Applicant amendment to remedy this condition. It is conceded that "processing" and "selecting", although definite to the extent that the methodology is actually performed, remains rather vague. In their given breadth, these exemplary claims remain unclear what process is "selected", any criterion used to "select", the results of any "selection", and/or what specific utility this process is attempting to describe.

23. The breadth of the claims remain broad enough to construe multiple other embodiments of the prior art as a whole, and Applicant has been fore-warned of the Examiner's position on this matter, and fails to address it properly. Applicant has now had multiple opportunities to amend the claimed subject matter, and has failed to modify the claim language to distinguish over the prior art of record by clarifying or substantially narrowing the claim language. Thus, Applicant apparently intends that a broad interpretation be given to the claims and the Examiner has adopted such in the present and previous Office action rejections. See *In re Prater and Wei*, 162 USPQ 541 (CCPA 1969), and MPEP § 2111. Further, Applicant employs broad language which includes the use of words and phrases which have broad meanings in the art. In addition, Applicant has not argued any narrower interpretation of the claim language, nor amended the claims significantly enough to construe a narrower meaning to the limitations. As the claims breadth allows multiple interpretations and meanings which are broader than Applicant's disclosure, the Examiner is forced to interpret the claim limitations as broadly as reasonably possible, in determining patentability of the disclosed invention. Although the claims are

Art Unit: 2144

interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). As the claims breadth allows multiple interpretations and meanings which are broader than Applicant's disclosure, the Examiner is forced to interpret the claim limitations as broadly as reasonably possible, in determining patentability of the disclosed invention. Thus, Applicant apparently intends that a broad interpretation be given to the claims and the Examiner has adopted such in the present Office action rejection(s). See *In re Prater and Wei*, 162 USPQ 541 (CCPA 1969), and MPEP § 2111.

Conclusion

24. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

25. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

26. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Marc Thompson whose telephone number is (703) 308-6750. The Examiner can normally be reached on Monday-Friday from 9am to 4pm. If attempts to

Art Unit: 2144

reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Jack Harvey, can

be reached at (703) 305-9705. The fax phone number for this Group is (703) 872-9306.

Inquiries of a general nature relating to the general status of this application or proceeding should

be directed to the 2100 Group receptionist whose telephone number is (703) 305-3900.

MARC D. THOMPSON
MARC THOMPSON
PRIMARY EXAMINER

Marc D. Thompson
Patent Examiner
Art Unit 2144